

# TEACHERS' PERCEPTION TOWARDS THE USE OF ICT IN VIETNAM: USING ACTIVITY THEORY TO IDENTIFY CONTRADICTIONS

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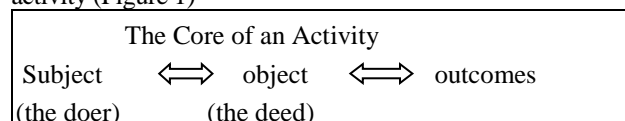
**Abstract** - This paper presents the findings of a study which was undertaken at five different primary schools in Vietnam. The participants were 5 teachers of English aged 28 to 35 in Quang Ngai province. This quantitative study aims to explore teachers' perception towards the use of ICT in their schools in Vietnam. Activity Theory is employed as the framework for guiding the study owing to the fact that its focus is on the identification of contradictions occurring in the activity system. From Activity Theory analysis, several contradictions could be located. The study provides implications for future research in terms of teachers' adoption of ICT at different levels as well as recommendations for ICT use improvements.

**Key words** - activity theory; contradictions; ICT; perception; teacher

## 1. Introduction

ICT (Information and Communications Technology) has played an important role in English language teaching and learning in the world. The use of ICT has been emphasized and spread all over the world in this field. Developed countries in Asia strongly endorse and support ICT as an essential component of innovative student-centered pedagogy (Albion, Tondeur, Forkosh-Baruch, & Peeraer, 2015). As Peearer and Van Petegem (2011) mentioned, with directive 55 (MOET, 2008), an educational reform rationale puts the emphasis in that direction in Vietnam too. In the context of the movement for friendly schools and active students (MOET, 2009) the role of ICT is conceptualized as to support educational renovation towards a creative learning society. In addition, educators in Vietnam were encouraged to reasonably implement ICT applications as part of new and innovative methods of teaching and learning (MOET, 2008). However, whether ICT has been adopted effectively or not is still controversial. In fact, few studies have consistently shown that technology integration shows disappointing levels of penetration and success (Cuban, Kirkpatrick & Peck, 2001; Bauer & Kenton, 2005; Dang, 2013). Recently, it has been pointed out that there are crucial teacher attributes including perceptions, beliefs and attitudes which play an important part in the acceptance or rejection of ICT (Vandelinde, 2011; Veen, 1993; Mumtaz, 2000, Jimoyiannis & Komis, 2006). Moreover, according to Loveless (2003), teachers are aware of the ubiquitous presence of ICT in their teaching environment, but may not perceive the link to their teaching practices. In reality, teachers' perception towards the use of ICT in teaching is very important as it forms a tendency that makes them feel favorable or unfavorable towards the use of modern technology in teaching (Qasem, 2016). In Vietnam, this situation is not different with poor penetration of ICT in teaching (Hong, 2014). On the other hand, Activity Theory (AT) is thought to be the best kept secret in academia (Engestrom, 1993) due to its popularity for use in the field of education. Besides, AT can be used as a lens to understand the important issues related to a certain matter (Murphy &

Rodriguez - Manzanares, 2008). In fact, in simple terms, AT is all about 'who is doing what, why and how' (Hasan & Kazlauskas, 2013). In AT, the relationship between subject (the doer) and object (the thing being done) forms the core of an activity (Figure 1)

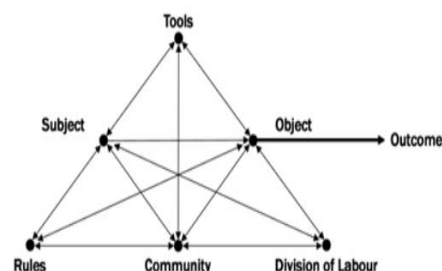


**Figure 1.** The core of an activity

(Adapted from Activity Theory: who is doing what, why and how (Hassan & Kasslauskas, 2013))

As can be seen from Figure 1, the subject of an activity encompasses the activity's focus and purpose while the subject, a person or group engaged in the activity, incorporates the subject's/s' various motives. The outcomes of an activity can be the intended ones, but there can also be others that are unintended (Hassan & Kasslauskas, 2013).

In addition, according to Hardman (2005), the basic unit of analysis for AT is an activity system which refers to a group of people who share a common object (or problem space) and who use tools to act on that object, transforming it. In Figure 2, the object is represented as a circle indicating that this space is subject to change and is in a state of flux, making it difficult to pin down (Hardman, 2005). This author also maintains that relationships in this system are driven by rules, which both afford and constrain behaviors. Rules are the norms and sanctions that specify and regulate the expected correct procedures and acceptable interactions among the participants (Cole & Engerstrom, 1993). Division of labour within the system describes both a horizontal division among community members, as well as a vertical division between power-and status-holders which then can be understood as related to power within and between systems (Hardman, 2005).



**Figure 2.** An activity system

(Adapted from Activity Theory as a Framework for Understanding Teachers' Perceptions of Computer Usage at a Primary School Level in South Africa (Hardman, 2005))

Using the above-mentioned model to analyze teachers' perception on the use of ICT, the elements of AT of the

present study can be mapped as follows:

Subject → Teachers  
 Object → The goal of teaching (quality communication skills both written and spoken)  
 Tools → Methods and facilities used for teaching  
 Rules → Rules of the schools and relevant authorities  
 Community → students, teachers, and relevant administration as well as staff  
 Division of Labour → The roles and responsibilities of members of the community

(Adapted from *English Teachers' Perceptions about Their Teaching: Using Activity Theory to Identify Contradictions* (Marwan, 2009)).

In this study, AT is used to examine the contradictions within teachers' perception on the use of ICT in their teaching. Therefore, the following research question is used to guide this study:

Research question: What are the contradictions within teachers' perception on the use of ICT in their teaching?

### 1.1. Literature review

The term 'ICT' is defined as “forms of technology used for creating, displaying, storing, manipulating, and exchanging information” (Donnelly, McGarr, & O'Reilly, 2011). This definition seems to be general, thus, within the scope of this study, ICT is defined as computer, and the internet-based technologies which can be categorised into two types: i) generic software applications, e.g., word processors, presentation software, email packages, and web browsers; and ii) CALL software applications and useful websites with a focus on purposeful language teaching and learning (Sarkar, 2012).

### 1.2. Teachers' Perception on ICT Use

Hepp, Hinostraza, Lavaland Rehpain (2004) suggest that teacher beliefs and attitude to ICT influence the rate of ICT adoption. In fact, they identify those who recognize the potential of ICT will quickly explore tools in their practice and perceive computers as a 'valuable tool' and 'useful' (Hepp et. al, 2004).

In addition, Loveless (2003) claims that teachers' perceptions on ICT use are fashioned by their identity and participation in wider cultural and social sphere which influence the professional areas and settings in which they practice. Besides, in Rogers' Diffusion of Innovation Theory (2003), perceptions on ICT use include perceived ease of use, perceived usefulness and satisfaction. According to Roger, perceived ease of use refers to the degree to which a teacher believes that using ICT will be free from effort. Teachers may believe that technology is useful and at the same time, they may perceive the use of technology to be too difficult and therefore performance benefits of usage are outweighed by the effort of using the technology. This in turn affects the actual use of ICT in education. Perceived usefulness is the degree to which a teacher believes that using ICT will enhance his or her job performance at school (Rogers, 2003). It has been proved that teachers tend to use ICT when they think that it will help enhancing their teaching (Ma, Anderson & Streith, 2005). This is also supported by Knezek and Christenen (2002) who

reasons that perception of potential usefulness of the computer could influence attitude towards use of ICT. Also, according to Huang and Liaw (2005), teachers' attitudes towards ICT and their perceptions on ICT use play an important role in their making use of ICT in their teaching activities. Such perceptions are significant as they may influence the teachers' future ICT pedagogical practices (Von Konsky et al, 2009; Al-Zaidiyeen et al, 2010). Last but not least, Harris (2002) holds the viewpoint that the benefits of ICT will be gained when confident teachers with high perceptions on ICT use are willing to explore new opportunities for changing their classroom practices by using ICT.

## 2. Method

Five full time teachers at 5 different primary schools in QuangNgai province located in the Central of Vietnam were invited to take part voluntarily in this research. Prior to the recruitment, fliers containing information about the study, including the research contents, the research aim and the researcher's contact details were sent to potential teachers. After some time, five teachers contacted the researcher and expressed their interests in sharing their perception on the use of ICT in their teaching context.

Details of the 5 teachers (already coded as T1, T2, T3, T4 and T5) are shown in Table 1.

**Table 1.** List of teachers in this study by genders, highest academic achievements, number of years teaching English

No.	Participant Code	Gender	Highest academic achievement	Number of years teaching English
1	T1	Male	BA in TEFL	5
2	T2	Male	BA in English	4
3	T3	Female	BA in English	1
4	T4	Male	BA in TEFL	4
5	T5	Female	BA in TEFL for Primary Education	3

Semi-structured interview is chosen as an instrument for data collection. This tool is used because it allows the researcher to probe for views and opinions of the participants (Corbetta, 2003). Furthermore, it gives the researchers the chance to gain deep information about the phenomena being investigated (Cresswell, 2005). The interview questions were used to explore all the issues related to the contradictions within the activity system at such schools in Quang Ngai province. All the questions in this kind of focus group interview were intended to give a full description of each component of the Activity system of the teaching context in terms of Activity Theory as a framework of this study. (See Appendix for the questions)

Data is analyzed using Nvivo 8 (2008). The tree nodes (tho (T4) ughts and definitions about data, together with selected passages of text) are developed to create ideas, concepts, categorize the data. Walsh (2006) claims that this software is useful as it helps the researcher organize raw data and links them with memos and data biting where the researcher can make codes and analytical notes, and then edit and rework ideas as the project progresses. For preserving the participants' anonymity, the participants are referred to as T1, T2, T3, T4 and T5.

### 3. Results

The findings presented below are some of contradictions found from participants' responses.

In this research, teachers are willing to promote the use of ICT in their teaching to help students improve their communications skills, but find they are incapable of designing suitable activities with ICT as they think such designing activities would take time and much effort. In addition, lacking facilities in teaching is another problem. This is a contradiction related to Subject and Tools (1). This is acknowledged in the following comments:

Nowadays using technology in teaching also gives teacher some difficulties. Teachers need a lot of time to find material to prepare lesson plans as well as it also depends on many extent factors.

(T1)

*I know that using ICT in my teaching is very useful as it may help me to save my time and it will have great effect to students but my ICT use is quite limited because I am not confident in using ICT in my class. I can only use powerpoint and some audio.*

(T5)

*My school is in a poor village and far from town so I only use my computer to prepare lesson plan, check pronunciation and play recording for my students to listen to. As a result during English lessons some students feel bored and difficult to learn.*

(T2)

*It is very difficult for me to teach English. At my school, there is nothing in it although it is in the central of Duc pho town. There isn't computer room, interactive table and many different facilities. I do everything myself. I buy a cassette to teach listening for my students and I only use cassette to teach English at school*

(T3)

*The inadequacy of technical staff leads to a contradiction between Subject and Division of Labour (2) as teachers need technical support when they encounter difficulties when using ICT in their teaching but usually there are few staff available when teachers are in need. For example, a teacher commented as follows.*

*Teacher needs a lot of time to prepare electric lesson planning such as search pictures, fun games, .... Teaching technology depends on many things: electricity, computers, machines but I often have some difficulties in using them. Unluckily, whenever I have problems, I can't find any technical staff to help me.*

The workload teachers suffer from other work besides teaching hinders teachers from raising good quality in using ICT for their teaching. This is one form of contradiction between Tools and Object (3). It is true that if teachers are given a fine workload where there are chances for them to fulfill, they could provide quality teaching to students (Dison, Scott, & Dixon, 2007). T4 said:

*Using ICT is time consuming and there are not enough facilities. Moreover, the new curriculum contains too many lessons. Besides teaching, I still have a lot of things to do such as doing the task as a form teacher. You see, I have to*

*attend many meetings.*

The lack of coordination and support among teachers and administrative staff (i.e. those in charge for timetable management and curriculum management) leads to the contradiction between Division of Labor and Object (4) because teachers' willingness to diversify their teaching to motivate their students so that their learning will become better due to the fact that teachers sometime cannot use the language laboratory or the contents of the lesson are too long for teachers to cover in one period. One teacher expressed his opinion as follows:

(T2)

*Sometimes I cannot use the lab as it is overlapped and my lesson has too many contents. I cannot let students play some games with ICT though I know they will be very interested in it.*

(T1)

*A contradiction also occurs between the Subject and Rules (5) since teachers' effort in using ICT to create exciting activities may not be supported by a number of schools' regulations due to the workload or textbook (T3). One teacher said during the interview:*

*The curriculum is so long, it is hard for me cover all the contents. If I create more products, it will take not only my time at home but also my time in class. It is very hard for me in my situation*

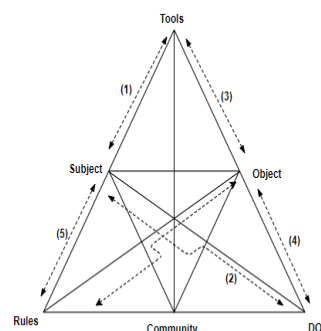


Figure 3. Contradictions within the activity system

### 4. Conclusions and Suggestions

The good adoption of ICT into teaching requires many different factors. To understand which factors may facilitate or constrain the adoption process requires a good understanding of activity system in which they are located. Engesstrom (2001) claims that an analysis of contradiction using Activity Theory is a useful way. Thanks to such analysis approach, the researcher could understand the whole process within its activity system, teachers' use of ICT in their teaching in this context. In addition, she could also identify problems that need to be addressed so that the situation would be improved. Hence, the contradictions in this research should not be merely seen as the problems, but they are considered as the useful sources for improvements (Nelson, 2002).

In this study, there are several contradictions within teachers' perceptions on the use of ICT in their teaching context. First, the use of compulsory textbooks puts some constraints on teachers as its long contents hinder teachers from performing some other kinds of activities that bring good motivation and

interest to their students. Consequently, the view that requires teachers teach the whole contents of the books should be reviewed so that teachers could base on the main contents of the textbooks and choose what and how to teach so that their teaching will bring the best quality to their students.

Second, the contradiction related to the lack of technical support for supporting teachers in their use of ICT in teaching should not happen in the future. This can be done in different ways. On the one hand, all the facilities must be checked regularly to make sure that they are in good conditions. On the other hand, each school should have enough technicians who are present at the language laboratory so that teachers could be supported in time. This will, in turn, encourages teachers use ICT in their teaching as teachers feel more confident.

Third, the contradictions triggered by teachers and other staff in administration due to workload and timetable management can be solved if the teaching quality is considered a priority and teachers should be facilitated in their teaching.

In summary, this study has provided some recommendations for the improvements based on the findings regarding to the contradictions happening within the system using AT as the framework. The study cannot avoid some limitations due to the limited number of participants and therefore the results might hardly be generalized. Furthermore, the study is carried out at primary school level; further study can also be conducted at different levels.

## Appendix

Questions for the focus group interviews

- i. What is your viewpoint about ICT use in teaching? Do you often use ICT in your teaching? When teaching speaking skills, what advantages and disadvantages do you encounter if you use ICT?
- ii. Do your school and relevant authorities support your use of ICT in teaching? In what ways?
- iii. Do you use ICT in teaching speaking skills? Which ICT use do you adopt in teaching speaking? What are the students' attitudes toward such use of ICT?
- iv. Do you think it is necessary to integrate ICT in your teaching? What will facilitate this integration?
- v. In what ways could the skills you presented in your products be applied into real life setting or workplace?
- vi. How did educational technology (eg. Web Tools 2.0) help in teaching and learning?
- vii. Do you think it was important to integrate educational technology into curriculum-based learning? Why do you think so?
- viii. What were the changes you wish you could have made during the planning, designing, and implementation stage and how could the changes affect teaching and learning?
- ix. How could you further improve your classroom management/teaching method?
- x. Did your product(s) benefit your learners in terms of their knowledge and soft skills? Why do you think so?
- xi. Do you think your teaching approaches work well with the application of educational technology? If so, in what way? If not, why?
- xii. How did your instructions and product(s) impact the learners? If so, in what way? If not, why?
- xiii. What difficulties do you encounter when developing technology based materials for teaching speaking skills?

xiv. Could you suggest some solutions to those problems?

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